"Powder Blue" Nitroform® Ideal for Introducing Penncross Bentgrass Seed into Putting Greens by Hydroseeding

TIMING of the actual overseeding is important. The principle is to introduce seed at a time when Poa annua and existing bentgrasses will be weakest and least likely to compete with the tiny seedlings. This may be in early spring when turf is experiencing a shortage of nitrogen, or in late summer after Poa has "gone out" and before it has started to germinate for its fall growing period. This timing will reduce compaction and provide opportunity for rapid root growth.

CULTIVATION of the turf is essential, followed by dragging and sweeping. If an Aero-Thatch is used, it should be operated in two directions to reduce thatch and provide pulverized soil to partially cover the seed. If any aerifier is used, there should be several passes made in different directions, followed by vertical mowing and spike discing to provide shallow pits for the seed. A Greens-Aire may be used once over followed by multiple spike discing and vertical mowing.

LOADING THE POWER SPRAYER—In this hydroseeding technique we can use any good standard power sprayer. So far as can be determined, there has been no damage either to the seed or to the most delicate parts of the sprayer.

The following steps are important:

1. Remove all screens to avoid clogging.
2. Load the tank with 10 gallons of water for each 1,000 square feet of surface.
3. Add Powder Blue Nitroform at the rate of 5 pounds for each 1,000 square feet while agitator is running.
4. Add a teaspoonful of any good detergent to reduce surface tension and to help bring seed into suspension.
5. Add ¼ (never more than ¼) pound of Certified Blue Tag Penncross bentgrass seed for each 1,000 square feet. Continue to agitate.
6. Equip discharge hose with pistol grip garden hose nozzle to cover the area with a coarse spray and to avoid clogging.
7. Spray the prepared greens surface uniformly with the agitated suspension. The blue color provides an excellent guide for uniform distribution.
8. Using a rosette nozzle, rinse the green with clear water from irrigation system until the blue color disappears. Sprouts may show in 3 to 5 days if conditions are favorable for germination. Keep surface moist for a week to 10 days. Severe drying can kill the germinating seeds. Play may continue if desired.

COMMENTS—The process just described has been used successfully by two clubs in Wisconsin and one in Virginia. Germination in 3 days was reported in one case. One-half pound of Penncross seed gave a uniform pattern of 35-40 seeds per square inch.

Presented in the interests of better turf by Fred V. Grau, Consulting Agronomist

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Fred Grau's
Turf Questions & Answers

**Fairways Get Attention**

Fairway improvement has been receiving an increasing share of attention in the last two or three years. When putting greens are mediocre to poor, little time or money is allocated to fairways. The gradual upgrading of greens and tees has resulted in drawing attention to the rather sad condition of fairway turf.

Why do fairways deteriorate? There are a number of reasons. They vary with the type of grass, geographical location, soil type, water supply, diseases, insects, management, fertilization or lack of it, and height of cut. Renovation of fairways has been discussed at a number of conferences. In a few cases the real causes of poor turf have been described. Then, and then only, the mechanics of renovation make sense, especially when they are related to correcting the weaknesses which brought about the unsatisfactory condition.

**Causes of Deterioration**

Bluegrass fairway turf (unwatered) can be eminently satisfactory but often it becomes thin and weedy. The first thought, generally, is "kill the weeds!" The weeds are there because the turf was not dense enough to keep them out. If grubs are responsible, an appropriate insecticide first must be used to terminate the activities of the insects. Another cause may be leaf-spot, which seriously thins turf and allows weeds to encroach. By the time the weeds appear, it is too late to apply a corrective fungicide treatment for the disease. If this is the case, two approaches are suggested: (1) introduce a leafspot-resistant type of bluegrass and (2) fertilize more generously in late summer or early fall to encourage a dense turf.

Natural rainfall varies and thus the quality of unwatered bluegrass will vary. When water is applied to bluegrass turf the result often is weeds, poa annua and disappointment. Why is this so? So far as it can be determined, the applied water stimulates growth continuously through periods when bluegrass usually is dormant or semi-dormant. This exhausts the reserve
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of food in the roots and rhizomes, weakening the plant and allowing water-stimulated weeds to encroach. The water, if improperly used, will increase poa annua. When the poa content reaches a certain point, the supt is caught in a vicious cycle. To reduce water would mean a loss of turf (mostly poa). This generally will not be tolerated. Soon comes the time when a hot humid period reduces the poa to zero and the supt is forced to do something. Perhaps too often the next step is bent!

Can Be Irrigated

Common bluegrass, Merion or others can be irrigated successfully if water is applied as needed. The most important single factor in growing good bluegrass turf is adequate nutrition. So often the weeds get the attention instead of the nutrition that is needed so badly.

Many studies have been conducted which spell out the relation between height of cut and depth and volume of roots. There is no question but that more roots thrive at higher cuts. Sometimes the fact of "playability" is lost sight of. Fairway turf is produced for pleasurable play. This means dense, firm turf for a good lie. Too high a cut destroys the playing quality. Too short a cut injures the grass. Somewhere in between there is a necessary compromise.

The value of soil cultivation has been amply proved and demonstrated. Without cultivation soils become compact. Compaction seriously limits the ability of water and plant food to penetrate to the root zone. Rainfall becomes much less effective.

Balanced Feeding

When bluegrass fairways become thin there is a tendency for the next step to be "reseeding." When better judgment prevails and the thin turf is fertilized according to need, the need for seed virtually vanishes. Recently a course was inspected that had very poor fairways. Reseeding was proposed. Soil samples were taken and analyzed at an agricultural college. Fertilizer was applied to meet the needs of the soil and the turf. When phosphorus was in excess none was applied. A year later the turf had filled in so well that the reseeding project was scrapped and the money was put into the balanced feeding program.

Certainly the indiscriminate use of complete fertilizers on bluegrass turf can be cited as an undesirable practice. Scientific balanced feeding, based on bona fide soil tests, has shown striking results.
Gold in That Mercury
(Continued from page 35)
lies on tees, greens and fairways are fully
illuminated.

The lamps in the Colonial Palms sys-
tem are housed in cast aluminum shells
which have pyrex tempered lenses and
aluminum reflectors that are easily re-
moved and replaced when they become
dirty. Mercury vapor lamps, O'Connor
says, retain their efficiency much longer
than others.

Although he ascribes two other, and
possibly three reasons, for the practically
immediate success of the Miami golf cen-
ter, O'Connor is strongly inclined to think
that his lighting arrangement is the thing
that brings the players in. "We kind of
pioneered the system that we have," says
the Colonial Palms operator, "and we had
some uneasy moments wondering if our
$75,000 investment in the lights ever was
going to pay off. But after the first sum-
mer of operation, we were pretty sure that
it would."

Miniature Saves Summer Business

O'Connor goes on to explain that busi-
ness in the winter and spring of 1960-
61 was everything it was hoped it would
be. A rather sharp tapering off was ex-
pected when the warm months of 1961
approached, but surprisingly night play
at least was good if not bustling. The
miniature course pulled heavily from June
through November and, indirectly, it
resulted in better than anticipated busi-
ness on the range and Par 60 course. The
same pattern has been repeated in 1961-
62, only, as previously mentioned, on a
stepped-up basis.

Colonial Palms, located several miles
south of the heart of Miami, is in an area
with a population of some 200,000 per-
sons who live within five miles of the
center. Surveys indicate that local resi-
dents account for roughly 70 per cent of
the activity on the range, miniature and
short course. Thus, the expense of oper-
ating the center comes close to being un-
derwritten by people living in the vicinity
of Colonial Palms.

Insurance Ticket

"This is a most encouraging thing,"
O'Connor declares. "It assures us that
steady, repeat business coming from our
own neighborhood is going to just about
take care of our operating costs. What-
ever we make from transient golfers is
practically all profit. We hadn't counted
on this kind of a ratio when we opened

September, 1962
Colonial Palms. The local patronage has turned out to be our insurance ticket."

As for the transient volume, there is every indication that it should be ample. Colonial Palms is located on Dixie Highway No. 1 and between 30,000 and 40,000 automobiles pass it every day. So, even a small percentage of turnoffs should guarantee a fairly substantial profit.

In the short time Colonial Palms has been in operation, a large and loyal group of patrons has been developed. For the most part the clientele has been wooed by the many events that are staged for its benefit. There are golf leagues, Ladies Days, Seniors Days, tournaments of various kinds, clinics, exhibitions, etc. in profusion. Associations for both men and women are sponsored by the club. The management sees to it that quite a large number of free passes are distributed as prizes for various events. Awards such as these carry a higher appreciation value than silver platters or plaques.

**Draws on Old, New Golfers**

Much of Colonial Palms' following was developed through direct mail promotion and pamphlets and postcards are still considered the best form of advertising. The club claims it is getting something like 800 people a year interested in playing golf and in a survey taken about a year ago, it found that it brought that many golfers back to the game. "That was a rather amazing discovery," says John O'Connor, "but it proves that people who come to the Miami area to retire don't want to sit and stare at the palm trees and bougainvillea."

The influx of new players and the return of the old has developed not only a steady sales source for the pro shop but has kept four teaching pros, Jerry Goss, Clyde Lucas, Bobby MacNichols and Alice Kirby, busy for many of the 17 hours that the Miami center is open each day.

The Colonial Palms shop, incidentally, isn't of Par 3 or miniature dimensions, being as large and well stocked as almost any you will see at standard size courses. Because of those long holes on the course proper, and because many of the center's patrons like to practice on the range and beat away at the ball, there is just about as much demand for wood clubs as irons. And being proper Miamians, the people who come to Colonial dress the part. That, of course, is good for the apparel business. Altogether, Colonial Palms represents...
an investment of about $1,000,000. As you probably have already surmised, it goes first class all the way. The clubhouse, with a canopy that extends over part of the range, has a large dining room and bar and a long lounge that looks out over the range and part of the course and also houses the pro shop. Its comfortable furniture and fixtures complement the overall class of the center.

The Miami golf center occupies about 55 acres. Fairways and tees on the Par 60 are planted in dense Tifton 57 Bermuda, which has held remarkably well through the hot months, and the greens are planned to 328. The putting areas, running from 5,000 to 7,000 sq. ft. per green, are of a rolling type, rising to height of about six feet in the back. Just about as many traps surround them as you will find on the average and difficult standard course. Supervising the maintenance of the Colonial Palms course as well as the range and miniature is Emil Elama, who directs the work of four assistants.

Walter Anderson is fulltime executive sec. of the Florida Turf Assn., succeeding Col. Frank Ward.

Advertising Is Neglected
(Continued from page 32)

All advertising is directed to explode into a profit at the point of sale. The pro has one of the most valuable point-of-sale setups in all merchandising. His shop is where the merchandise is used— at the golf course. His lesson tee is the source of education in good golf.

Profit Motive Secondary

The pro himself is (or should be) known as a friendly, completely trustworthy authority on golf who sells not because a merchandising profit is his primary objective. The pro's fundamental reason for selling is that of helping golfers to get greater enjoyment and better scores. Then comes the profit motive. Other retailers can make a profit without being in the pro's position of responsibility for the satisfaction of the buyer.

Very few retailers are any better situated than the pro to make profitable use of advertising, his own and that of manufacturers.

Good advertising is a teaching job for the customer's profit as well as for the profit of the pro. The majority of golfers do not get any planned educa-
ask your PRO

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tion in how to be good members of private clubs. Diplomatic advertising by the pro will do a great deal of this important job for the club.

Furthermore, such advertising will educate the golfer in the obligations and benefits of buying from the pro, in the good and thrifty common sense of paying for club cleaning and storage, taking lessons and in all other ways making use of the professional’s services.

Almost every professional has at his private club or pay-play course one or more advertising men who are enthusiastic golfers. These fellows would enjoy discussing a pro’s advertising problems, planning a campaign and even writing or editing copy for the pro’s letters to his members, articles in the club magazine or printed circulars. The pro’s advertising counselor would tell him how to make profitable use of manufacturers’ advertising and possibly local newspaper or radio advertising.

In some places the pro has an advertising and selling problem with the used clubs he has taken in as trade-ins. His advertising friend might be able to help him solve this problem.

The pro is in ideal position to make good use of advertising because golfers want to be told by the pro what to buy, and they prefer to buy from the pro.

The immense success of the “Christmas Shopping At Your Pro Shop” pro advertising book shows how golfers and their non-golfing friends appreciate and respond to the pro’s advice on buying gifts. Millions of dollars each year now are being spent in pro shops for Christmas gifts that are greatly preferred to the ties, mufflers, etc., that normally are received.

Talk over your pro department advertising picture with your advertising friend. He probably will want to give you invaluable advice and help as a favor to you and because he is interested in golf, his club and golf business. But insist that he take something — a wedge, a putter, a 5-wood, a box of balls, a bag, a shag bag, an umbrella or something else. What he will tell you will be worth a lot of money to you if you will do it.

Pros learned how to save many dollars when taxation made it necessary for them to get the expert services of accountants and tax advisers. They will learn how to make even more money when they learn how to use what their friends in advertising can tell them.
Swinging Around Golf
(Continued from page 20)

Philadelphia, seeking store space throughout area for indoor franchised miniature courses... Fad of some years ago is said to be making a comeback through eastern part of the country.

Arrowbrook CC, being built near Bordentown, N.J., was designed by Hal Purdy, the architect, who also is president of the club... Larry Brancato building a 2,600 yard 9-hole course in Raleigh, N.C. One of the fellows who helped out on the PGA Championship at Aronimink was Jim Elliott, coach of Villanova's track team... Chicago Dist. GA reports that member clubs have had unprecedented vandalism problem this summer... Association attributes it to increase in suburban population and lapse in parental control... Quite a few pros were flown from the American Classic in Akron to Chicago to play in Onwentsia Club pro-am on Aug. 13... Tourney got underway on July 2 but was rained out halfway through the proceedings and had to be replayed. It was staged for benefit of the Children's Memorial Hospital in Chicago.

Lou Strong, PGA pres., finishes as pro at Oak Hill CC, Rochester, N.Y. on Oct. 15... Thomas W. Crane, PGA executive director and counsel takes an extended vacation for his health... Frank Sprogell is through as pro-supt. of PGA National course which reverts to city of Dunedin, Fla.... Sprogell, after first vacation in years, joins Dr. Paul Allen's fertilizer company... Among Sprogell's services to PGA was starting of and conduct of the manufacturers' exhibits in tents during PGA Senior Week... Latest show netted $16,000 profit for PGA, a sum greatly in excess of Sprogell's salary... Pro job at new PGA courses at West Palm Beach is to be a political plum, according to pros with big ears.

That's part of the picture that sound businessmen pros say makes it imperative that the PGA have a drastic reorganization on a basis befitting the character and size of the golf business, and quit playing politics... PGA national officials spend more time on "official business" than USGA officials and can't afford it... Nobody's ever worked hard-

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er for PGA than Lou Strong, had more
headaches and gotten probably fewer
cheers than his efforts have warranted . . . The late George S. May and Strong
parted company because May said Strong
stayed away from his job at Tam O' Shanter club too much in attending to PGA
affairs . . . Oak Hill has not been pleased
by Strong's absences in handling extra
curricular affairs and the absences cost
Strong money . . . Harold Sargent, Hor-
ton Smith and Harry Moffett were happy
to get through with their jobs as PGA
presidents . . . Their club members also
were even more pleased than any of these
three gentlemen.

Who would have gone through, for
money, what PGA national officials have
done for no pay in the past 12 months? . . . There's been no glory in it, either . . . Look at the work: . . . Getting out
of the Dunedin deal . . . Getting into
the Palm Beach Gardens deal. (What-
ever that is! PGA members have been
told very little about it.) . . . Blunder-
ing into OKing a TV "exhibition" in
conflict with a tournament having a
PGA member as a promoter . . . Print-
ing a chain store ad competing with